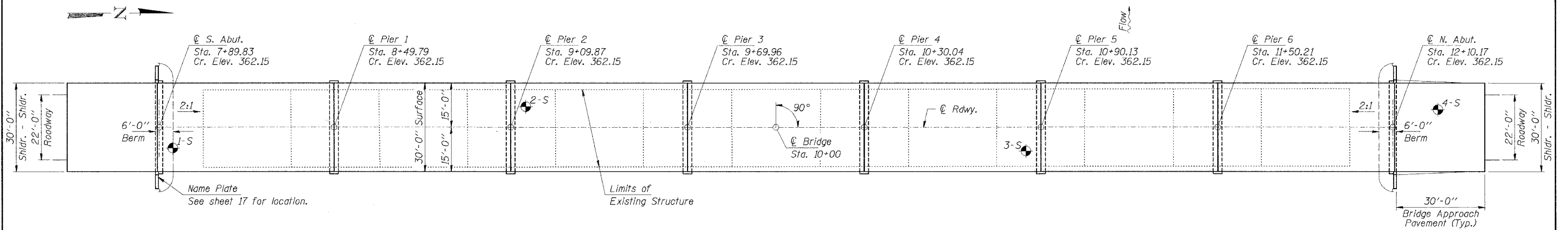
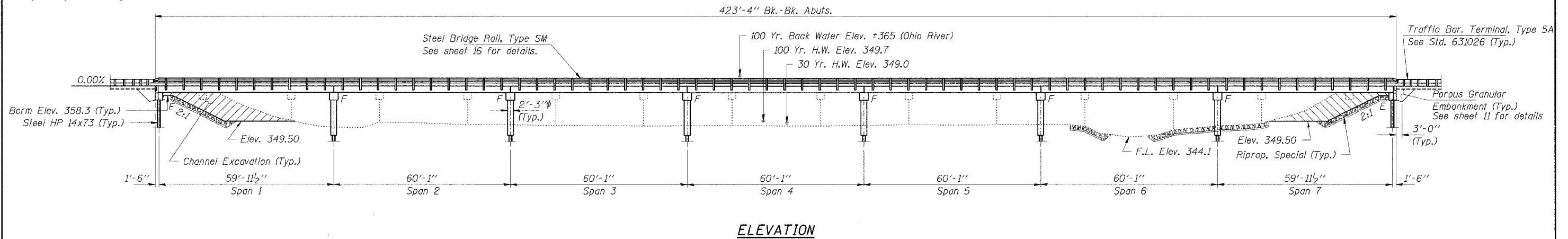


Existing Structure No. 030-3001, Sta. 10+00.  
 Thirteen span Precast Concrete Slab Bridge on  
 concrete abutments and piers with Precast  
 Concrete piles, 386'-3" fc. - fc. abutments;  
 26'-3" o. - o. Deck.  
 Bridge will be closed to traffic during construction.  
 Salvage bridge rail and good beams.

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET
F.A.S. 888	00-00065 -00-BR	GALLATIN	22	10
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 99232				



**GENERAL NOTES**

Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer. See Sheet 11 for layout.  
 The Contractor shall drive two steel test piles in permanent locations; one at Pier 1, one at Pier 6, as directed by the Engineer before ordering the remainder of the piles.  
 All proposed construction activity shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act.  
 The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.  
 Excavation required for Porous Granular Embankment, construction of abutments and Concrete Encasement shall not be paid for separately, but shall be considered included in the cost of that item.  
 Reinforcement Bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.  
 In addition to all other requirements of section 512 of the Standard specifications, splices for HP14x73 piles shall develop the full capacity of the steel's cross sectional area of the pile for tension, shear and bending forces. One approved method of achieving this requirement is full penetration butt welding of the entire cross section. Other types of splices meeting the full capacity requirement may be allowed subject to the approval of the Engineer. Any proposal by the contractor to use an alternate splice method must include adequate documentation demonstrating that the full tension, shear and bending capacities will be met. Appropriate welder qualifications will be required for the positions and processes used in splicing all piles. Nondestructive testing of completed welds will be limited to visual inspection.

**WATERWAY INFORMATION**

Drainage Area = 2.2 Sq. Mi.		Low Grade Elev. 360.90 @ Sta. 14+00						
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Natural H.W.E. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	30	210	385	390	349.0	0.0	0.0	349.0
Base	100	260	575	590	349.7	0.0	0.0	349.7
Overtopping								
Max. Calc.	500	310	675	690	350.0	0.0	0.0	350.0

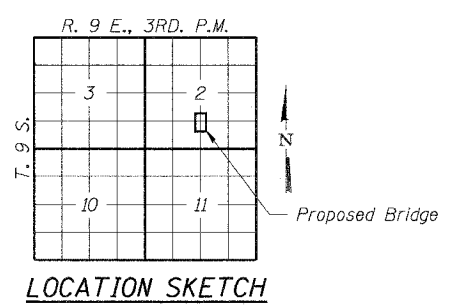
**DESIGN STRESSES**

f'c = 5,000 psi (Prestressed Beams)  
 f'ci = 4,800 psi (Prestressed Beams)  
 f'c = 3,500 psi (Class SI Concrete)  
 f's = 270,000 psi (Prestressed Strands)  
 fsi = 189,000 psi (Prestressed Strands)  
 fy = 60,000 psi (Reinf. Bars - Field Units)  
 fy = 36,000 psi (Steel H-Piles)  
 n = 9 (Class SI Concrete)  
 Loading HS 20-44

**SEISMIC DATA**

Seismic Performance Category (SPC) = B  
 Bedrock Acceleration Coefficient (A) = 0.10g  
 Site Coefficient (S) = 1.5

**PLAN**



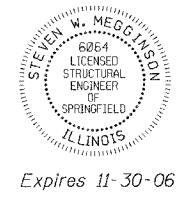
**LOCATION SKETCH**

MIDDLE FORK CYPRESS CREEK  
 BUILT 200 BY  
 GALLATIN COUNTY  
 SEC. 00-00065-00-BR  
 F.A.S. 888  
 F.A. PROJ. BRS-888(119)  
 STR. NO. 030-3116 LOADING HS20

**NAME PLATE**  
 See Std. 515001

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges".

*Steven W. Megginson* 5-26-05  
 ILLINOIS STRUCTURAL NO. 6064



**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Ton			110
Riprap, Special	Ton			880
Neoprene Expansion Joint 4"	Foot	60		60
Concrete Structures	Cu. Yd.		83.0	83.0
Concrete Superstructure	Cu. Yd.	1.6		1.6
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	12,600		12,600
Stud Shear Connectors	Each		176	176
Reinforcement Bars, Epoxy Coated	Pound	185	11,000	11,185
Steel Bridge Rail, Type SM	Foot	846		846
Steel Piles HP14x73	Foot		7,240	7,240
Test Pile Steel HP14x73	Each		2	2
Concrete Encasement	Cu. Yd.		67.2	67.2
Name Plates	Each		1	1
Waterproofing Membrane System	Sq. Yd.	1,400		1,400
Bridge Seat Sealer	Sq. Ft.		280	280
Bituminous Concrete Surface Course, Superpave, Mix "C", N70	Ton	160		160
P.C. Mortar Fairing Course	Foot	945		945

**HLR**  
 Rice, Berry and Associates  
 A Division of Hampton, Lenzini and Renwick, Inc.  
 Civil & Structural Engineers  
 80 S. Durkin Drive  
 Springfield, Illinois 62704  
 217-546-3400  
 P.O. Box 1036  
 DuQuoin, Illinois 62832  
 618-790-4631  
 Account Number 12-38-0003-1  
 Date: 05/26/05  
 DESIGNED: T.P.L. CHECKED: S.W.M. DRAWN: D.B.

**GENERAL PLAN AND ELEVATION**  
 SECTION 00-00065-00-BR  
 F.A.S. 888 / C.H. II  
 GALLATIN COUNTY  
 STR. NO. 030-3116 / STATION 10+00